[57] **ABSTRACT**

An improved interface control advantageously may be operated by one hand. A thumbpiece is slidably disposed within a longitudinal arm member which moves in an arcuate path. Placing his or her thumb in the thumbpiece, a user controls the horizontal positioning of a cursor by moving the arm member along the arcuate path. Vertical positioning of the cursor is controlled by sliding the thumbpiece along the length of the arm member. Trigger functions are implemented by exerting a downward force on the thumbpiece. Since the downward force used to implement the trigger function is orthogonal to motions used to control positioning of the cursor irrespective of the particular positions of the arm member and thumbpiece, the disclosed interface control prevents a user from inadvertently altering the positioning of the cursor during implementation of the trigger function. The arm member and sliding thumbpiece emulate the natural pivoting and curling/extending motions of the thumb, thereby resulting in a precise, easy to use, and ergonomically superior interface control.